THE MEXICAN ITINERARIES OF T. S. BRANDEGEE

REID MORAN

Townshend Stith Brandegee was a pioneer botanical explorer in Baja California, Mexico, collecting there between 1889 and 1902 (Setchell 1926). Many plants have been named from his collections. He later spent several months on at least two trips in mainland Mexico and there, too, made important collections. Some of the localities where he collected are little known and their names perhaps ephemeral. Moreover, even in one region such as Baja California, the same name may be used for several places. Without a knowledge of Brandegee's routes, therefore, it is sometimes difficult to guess even the general area from which a specimen came; and he left no field notebooks to settle such questions. Nelson (1921) gave a brief account of Brandegee's explorations in Baja California, and Ewan (1942) gave all his itineraries so far as they were then known. But Brandegee's Mexican itineraries can now be given in much greater detail.

New information comes from several sources, which will be named specifically for each trip. Some details are from published accounts of the trips and of the specimens collected by Brandegee and by his various companions. A few further details were found in letters (on file in the Herbarium of the University of California) from Brandegee to his wife in California. But most of the information is from labels on Brandegee's specimens in the Herbarium of the University of California. Data have been collected from about 2000 herbarium specimens and from about 300 references to botanical and

zoological specimens.

The dates on Brandegee's specimens are not always right. Nearly five per cent of the labels are clearly inconsistent with the majority, and other errors are probably still unfound. Dates are omitted from the itinerary if they are clearly wrong; but in case of doubt, conflicting dates are sometimes included.

Some specimens apparently have the wrong month but the right year and the right day of the month. Others apparently have the wrong day of the month. About thirty specimens were found to have year dates not fitting into the itineraries given below. These dates are scattered from 1873 to 1903. With the year dates changed, however, most of these specimens do fit into one or another of the itineraries. Thus the fifteen specimens dated September and October 1891 all fit into the itinerary of September and October 1890, and the five dated September and November 1892 all fit into the itinerary of September to November 1893. A few specimens evidently from the 1889 trip are dated 1888, 1890, or 1899.

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Except as otherwise noted, every place listed below has been found to be in a position more or less consistent with the rest of the itinerary. Maps consulted include those of Brandegee (1889), Eisen (1895), and Nelson (1921); also the Map of Hispanic America, American Geographical Society; Lower California and the Northwestern States of Mexico, Arey-Jones Company, San Diego, 1930; and charts issued by the United States Hydrographic Office. Other sources are Grinnell (1928) and the Enciclopedia Universal Ilustrada, Hijos de J. Espasa, Barcelona.

The following abbreviations are used for the months: January, Ja; February, F; March, Mr; April, Ap; May, My; June, Je; July, Jl; August, Au; September, S; October, Oc; November, N;

and December, D.

Thanks are due to Mrs. Ethel Bailey Higgins for information about Kate Sessions, to Professor Joseph Ewan for various suggestions and information, and to Annetta Carter for help in collecting data from herbarium specimens.

MAGDALENA BAY TO SAN QUINTIN, JANUARY TO MAY, 1889

Brandegee landed at Magdalena Bay, on Magdalena Island, Baja California, January 11, 1889. After collecting there and on the peninsula, he was joined on the island late in February by Walter E. Bryant and Charles D. Hains of the California Academy of Sciences. After visiting Santa Margarita Island, they began the long northward journey to San Quintín. Brandegee (1889) gave a good account of the trip, with a map of the route, and Bryant (1889) gave a shorter account. Dates

are filled in mostly from herbarium labels.

Ensenada, Ja 9; Magdalena Bay or Id., Ja 11–18, 21–23, 25–26, 28; Boca de Soledad, Ja 28; Boca de Santo Domingo, Ja 29; Boca de las Ánimas, Ja 29–30; San Gregorio, F 1–9; Laguna Ramona, F 7; Purísima, F 11–15; Comondú Viejo, F 15; Comondú, F 15–19; Ojo de Agua, F 20; San Jorge, F 22; Magdalena Bay or Id., F 24-26; Santa Margarita Id., Mr 1–7; Magdalena Bay or Id., Mr 11–15; San Jorge, Mr 17–18; Pozo Grande, Mr 18–19; Comondú, Mr 20–30, Ap 2–3; Pozo de los Dolores, Ap 4–5; Purísima Cañon, Ap 5; Laguna Ramona, Ap 5; San Gregorio, Ap 5–6; San Juanico, Ap 7; San Raymundo (San Raimundo), Ap 7; San José de Gracia, Ap 8–9; San Benito or San Benito Cañon, Ap 10–11; Patrocinio, Ap 11; Jesús María, Ap 11; San Joaquín, Ap 12; San Ignacio, Ap 14–17; San Esteban, Ap 17–18; Ascensión¹, Ap 18; San Julio², Ap 19–20; San Julio Cañon,

¹ The Arey-Jones map shows a Rancho Asunción about 10 miles north of San Ignacio.

Hill of the street

² I have not found this place on any map, but Brandegee's account would seem to support the label dates at least in placing it between San Ignacio and San Pablo.

Ap 20; San Pablo, Ap 21–22; Cardón Grande, Ap 23; Campo Alemán or Pozo Alemán, Ap 23–24; Calmallí, Ap 24–26; San Luís, Ap 27–28; San Sebastián, Ap 28–29; el Rancho Viejo, Ap 29–30; Paraíso, My 1–2; San Enrique, My 2; San Regis, My 2–4; Santana³, My 4–5; San Borja, My 5–6; Llanos de San Julián, My 7; Ubi, Agua Bonita, My 8; Ubi (Yubay), My 8–9; el Llano de Santana, My 9–10; Calamajué, My 10–11; San Francisquito, My 13; Cajón de Santa María, My 14; Santa María, My 14–15; Agua Dulce, My 16; San Fernando, My 18–19; Las Huevitas, My 19–20; El Rosario, My 20–21; Socorro, My 21–22; San Quintín, My 22–24.

CAPE REGION, JANUARY AND FEBRUARY, 1890

Brandegee made his first trip to the Cape Region of Baja California in January and February of 1890. Landing at Magdalena Bay, he rode to Todos Santos with a Mexican boy as a guide (Brandegee 1890). Because of the unfavorable season, he collected few plants on this first part of the trip, and as a result the record is very incomplete.

Magdalena Bay, Ja?; Soledad, Ja 4, 8; Matancita ("Mantecita"), Ja 8; Inocente⁴, Ja 8; Juncal, Ja 11, 13; Rancho Salada, Ja 15–16; Rancho Colorado, Ja 16; Guadalupe, Ja 17; Cedro, Ja 18; Rancho Tomate, Ja 18; Todos Santos, Ja 19–20; Sierra de la Laguna, Ja 20–27; Todos Santos, Ja 27–F 1; La Paz, F 1–2,

4-5: Mazatlán, Sinaloa, F 10, 16.

CAPE REGION, SEPTEMBER TO NOVEMBER, 1890

In September, October, and early November of 1890, Brandegee, in company with Walter E. Bryant, ornithologist of the California Academy of Sciences, collected in the Cape Region. Bryant (1891) gave a good account of the trip, with an interesting commentary on the lives of the collectors as well as on the habits of the birds.

La Palmilla (La Palmia), Au 31; San José del Cabo, S 1– Oc 10; Miraflores, Oc 13–14; Agua Caliente, Oc 15; Sierra de San Francisquito, Oc 18, 20; Agua Caliente, Oc 21; Santiago, Oc 21; Buena Vista, Oc 23; San Bartolo ("San Bartolomé"), Oc 22–24; San Antonio, Oc 24–25; Triunfo, Oc 26; San Pedro, Oc 29; La Paz, N 1–2, 4–5.

³ On Brandegee's map, Santana is shown between San Enrique and San Borja, whereas el Llano de Santana is shown north of Ubi. No specimens were found labeled "Santana," where Brandegee should have been between May 2 and 5. But for el Llano de Santana, where he should have been about May 9 or 10, there are specimens dated May 4, 5, 9, and 10.

⁴ Perhaps this should be January 18, for there is an Inocente on the coast about 30 miles above Todos Santos.

CAPE REGION, MARCH TO MAY, 1892

In March, April, and early May of 1892, Brandegee collected in the Cape Region with Walter E. Bryant and Gustav Eisen, both of the California Academy of Sciences. Published accounts are brief (Brandegee 1892, Eisen 1895). Although Brandegee mentioned spending nearly a month in La Paz, the season was very dry and apparently he made few collections. During May,

the party collected in Sonora (Brandegee 1893).

Ensenada, Mr 3; San José del Cabo, Mr 8–17; Cabo San Lucas, Mr 17–18; San José del Cabo, Mr 19–20; La Palma, Mr 21; Miraflores, Mr 21; Santiago⁵; Sierra de San Francisquito, Mr 23; Sierra de la Laguna, Mr 24–26; La Chuparosa, Mr 25; Sierra de San Francisquito, Mr 26–30; Agua Caliente, Mr 31; La Palma, Mr 31; San José del Cabo, Ap 2, 4; Santa Anita, Ap 4; La Paz, Ap 13–14, 20–21, My 8; Guaymas, Sonora, My 12; Hermosillo, Sonora, My 13–15; Las Durasnillas, Sonora, My 17–18; Sierra Matapán, Sonora, My; Hermosillo, Sonora, My 21; San Miguel, Sonora?⁶.

SIERRA SAN PEDRO MARTIR, APRIL TO JUNE, 1893

Brandegee visited the Sierra San Pedro Mártir in May of 1893 with Alfred W. Anthony, Wilfred W. Anthony, Eugene C. Thurber, and Harry E. and Charlotte M. Wilder (Ewan 1942). Although herbarium labels give some information as to way points, they give few altitudes or localities in the Sierra San Pedro Mártir. Details of the itinerary therefore come mostly from Allen (1893) and Anthony (1893). The altitude of the highest point of the Sierra was estimated at 12500 feet rather than 10126 feet and that of La Grulla at 8200 feet rather than about 7200 feet. Other altitudes should therefore be corrected

accordingly.

Tijuana, Ap 17; Carrizo Creek ("22 miles south of Tijuana"), Ap 18–21; Las Palmas, Ap 21; Burro Cañon or Creek, Ap 22–23; Guadalupe Valley⁷, Ap 24; Sauzal, Ap 24; Ensenada, Ap 26; Santo Tomás, Ap 27; Guadalupe Valley or Creek⁷, Ap 27; Salado Cañon, Ap 27; San Vicente, Ap 28; Colnett, Ap 28; San Telmo, Ap 28–30; Aliso, Ap 30; Valladares, My 3–4; Santa Cruz Creek, My 4; Sierra San Pedro Mártir, first benches, My 5; 7000', My 6–10; 7500', My 11; La Grulla, 8200', My 13–22; Gulf slope, My 23; 8500', My 25–26; return trip begun, My 27; Valladares Creek, My 29; Valladares, My 30; Aliso, My 30; San Telmo, My 30–31; Colnett, My 31; Cabo Colnett, Je 1; Salado Cañon, Je 1; San Vicente, Je 1; Guadalupe Valley⁷, Je 2; San

⁶ San Miguel was mentioned by Eisen (1895, p. 763); the location

⁵ Brandegee mentioned that on this trip for the first time he ascended by the Santiago trail.

⁷ Note that there are two Guadalupe valleys, one to the north of Ensenada, the other to the south.

Antonio⁸, Je 3-4; Ensenada, Je 4; Guadalupe Valley⁷, Je 5; Burro Creek, Je 5; Gato Creek or Cañon ("36 miles south of Tijuana"), Je 5-6; Carrizo Creek, Je 6; San Diego, California, Je 7.

CAPE REGION, SEPTEMBER AND OCTOBER, 1893

In September and October of 1893, Brandegee made two trips from San José del Cabo into the mountains of the Cape Region. He was accompanied on the first trip by his wife, Katharine Brandegee, and on both trips by Gustav Eisen, of the California Academy of Sciences. Published accounts are brief (Brandegee 1894, Eisen 1895). The season was dry about San José del Cabo and east of the high mountains, and collections were small; "but west of the mountains the ground was well soaked by frequent showers, and vegetation was luxuriant."

San José del Cabo, S 1–6; San Felipe, S 9; Corral Piedra, S 9–10; San Lázaro or Sierra San Lázaro, S 10–11; El Taste, S 11–16; Saltillo, S 15–18; near Sierra San Lázaro, S 16–17; San Jacinto, S 18; Todos Santos, S 18; Pescadero, S 20–21, 23; coast south of Pescadero, S 23; near Sierra San Lázaro, S 25; San José del Cabo, S 27–28; Mazatlán, Sinaloa, Oc 8°; Santa Anita, Oc 11; Cañón Hondo, Oc 12¹⁰; Miraflores, Oc 12–13; San Bernardo Cañon, Oc 13–14; Saucito ("near Sierra San Francisquito"), Oc 14–15; San Francisquito, Oc 16; La Chuparosa, Oc 16–18, 21; Sierra de la Laguna, Oc 19–21; Cañón Hondo or Arroyo Hondo, Oc 21–22; Todos Santos, Oc 22; Pescadero, Oc 23; San Jacinto, Oc 23–24; La Mesa¹¹, Oc 24–25; San José del Cabo, Oc 27; Mazatlán, Sinaloa, N 2–3; Guaymas, Sonora, N 7–8.

VOYAGE OF THE WAHLBERG, MARCH AND APRIL, 1897

In March and April of 1897 on A. W. Anthony's schooner *Wahlberg*, Brandegee visited the islands off the west coast of Baja California. Others of the crew were Anthony, Henry B.

⁸ According to Brandegee (1893b, p. 207), this San Antonio is between Tijuana and Ensenada; and the Arey-Jones map shows a San Antonio about 10 miles north of Ensenada. On the type sheet of *Madia valida*, however, Brandegee is quoted as later saying that this San Antonio is well south of Ensenada. San Antonio del Mar is some 65 miles to the south—a long day's journey—and furthermore is south of San Vicente, where he apparently collected on June 1. Though two places called San Antonio are shown *east* of Ensenada, I find no other on the probable route.

⁹ Though no visit to the mainland was mentioned by either Brandegee or Eisen, this date is supported by 14 herbarium labels.

¹⁰ According to one label of another date, Cañón Hondo is in the Sierra de la Laguna. Whether it is on the east side of the range, and how far down it bears this name, I do not know. Perhaps this date is wrong.

¹¹ I have not found this name on any map, but it falls in about the same place in the itineraries of 1893 and 1902.

Kaeding, Richard C. McGregor, and Alfred L. Stockton. Though the Wahlberg went on to the Revilla Gigedos, Brandegee went home by steamer from San José del Cabo, stopping at Magdalena Bay and probably at Ensenada. Brandegee (1900) gave an interesting general account of his trip; details have been filled in partly from herbarium labels and partly from a catalog

of Anthony's (ms).

Ensenada, Mr 5-6; Todos Santos Is., Mr 6-7, 9-10; San Martín Id., Mr 12-13; San Gerónimo Id., Mr 15, 17-18; Guadalupe Id., Mr 20-26; Sparmanns Cañon, Guadalupe Id., Mr 26; San Benito Is., Mr 27-31; Cedros Id., Ap 1-7; Natividad Id., Ap 9-10; San Bartolomé Bay, Ap 12-14; San Roque Id., Ap 16; Asunción Id. ("Ascensión Id"), Ap 17; coast near Asunción Id., Ap 17; Abreojos Pt., Ap 18-19; San José del Cabo, Ap 22-30, My 2, 7-8; Magdalena Bay, My?. According to a letter from San José del Cabo dated May 2, 1897, Brandegee expected to leave by steamer for Ensenada about May 15.

CAPE REGION, SEPTEMBER TO NOVEMBER, 1899

In September and October of 1899, Brandegee made a seventeen-day trip from San José del Cabo into the northern mountains of the Cape Region. Aside from herbarium labels, the only information about the trip comes from letters written October 12 and 21 from San José del Cabo. He wrote that there had been little rain and that the vegetation seemed to be late.

San José del Cabo, S 15; La Palma, S 25; Miraflores, S 26; Agua Caliente, S 27; Vinoramas ("Binorama"), S 28; San Francisquito or Sierra San Francisquito, S 27, 29, Oc 1; La Chuparosa, Oc 2; Sierra de la Laguna, Oc 2–4; Todos Santos, Oc 4; San Vicente¹², Oc 8; San Pedro, Oc 9; Pescadero, Oc 9; Mesa Verde, Oc 10; San José del Cabo, Oc 10, 12, 16-17, 19, 21, 26, N 1, 3; Miraflores, Oc 14, 27; La Paz N 9.

CORONADO ISLANDS, APRIL, 1902

One specimen was seen from the Coronado Islands, dated April 27, 1902. No other Brandegee specimens from the Coronado Islands were found among the species known to occur there.

CAPE REGION, SEPTEMBER TO NOVEMBER, 1902

In October and November of 1902, Brandegee made his last trip to the Cape Region and "explored many localities not visited . . . during previous trips." Miss Kate Sessions went with him by ship to San José del Cabo and by burro into the mountains, starting back to San Diego about October 22 while he stayed on. Brandegee (1903) mentioned the trip but said nothing of the route. He wrote that because of the pre-

¹² If this is the San Vicente just east of San José del Cabo, then the date must be wrong.

vious drought not all the bushes were in bloom, but that the country was never so green, with the annuals more luxuriant than he had ever seen them before. Yet specimens are few, and often they are dated with only the month and the year.

According to Bailey (1937), Brandegee and Miss Sessions collected in the Cape Region in October of 1900. And according to Cockerell (1943), Brandegee and Miss Sessions once "went on mules all the way down Baja California to the Cape [and] returned by sea." I have seen no specimens to support a visit to the Cape Region in 1900 or a southward overland trip at any time. Probably both Bailey and Cockerell referred to the trip of 1902.

San José del Cabo, Oc 13, 16; Santa Anita, Oc 15 or N 15?; Cajoncito¹³, Oc 18; Sierra San Lázaro, Oc 18; San José del Cabo, Oc 21?, 24–26; San Felipe, Oc 30; La Mesa¹¹, Oc 31; Sierra el Taste, N 1; west side of Cape Region mountains, N 4–5; west coast of Cape Region, N 8; Miraflores, N 14?; San José del Cabo, N 25; Sierra de la Trinidad, N; Cabo San Lucas, N; San Felipe, N; La Palma, N; Pescadero, N; Magdalena Bay N; Ensenada, D.

SINALOA, AUGUST TO NOVEMBER, 1904

From August to November of 1904, Brandegee made a large collection in the vicinity of Culiacán, Sinaloa. He landed at Altata in August and during most of the period made his headquarters at Culiacán; but for about two weeks he stayed at a ranch near Cofradía, fifteen miles to the east, at the foot of Cerro Colorado. Brandegee (1905) gave a short account, and several letters add some details.

Altata, Au; Culiacán, Au 18–22, 24–25, 30; Altata, S 2; Culiacán, S 2, 6–8; Yerba Buena ("a house 10 miles from Altata"), S 10; Culiacán, S 11–14, 17, 19–20; Yervacito¹⁴, S 20–21, 26; Culiacán, S 22–24, 30, Oc 1, 5, 8–10; Yerba Buena, Oc 10; Culiacán, Oc 11–12, 18–20; Cofradía, Oc 20–29, 31, N 3, 5; Cerro Colorado, Oc 28, N 1, 3, 5; Imala, N 8; Culiacán, N 10–11, 14, 16; Altata, N 20.

Southern Mexico, May to July, 1908

For many years Brandegee identified and distributed the Mexican collections of his friend Carl A. Purpus. From May to July of 1908 he collected with Purpus in the states of Puebla and Oaxaca. But although he helped with the collecting, his name does not appear on the labels of the joint collections. In fact, in his report on the Purpus collections, Brandegee (1909) did not even mention that he had accompanied Purpus on the trip. Since Purpus did not give days of the month, the

¹³ If this is the Cajoncito south of Pescadero, then probably the

¹⁴ I have not found this name on any map, but there is no particular reason to question either the name or the dates.

route cannot be traced by means of herbarium labels. Moreover, the two were not together during the entire period, for Brandegee did not make some of the more difficult trips. The little information given below is mostly from a series of

interesting letters.

Tehuacán, Puebla, My 9; El Riego ("against the hills 3-4 miles from Tehuacán"), My 9-11; Sierra Paxtle ("the high Cerro de Paxtle can be seen from the city of Tehuacán"), My 13; San Luis Tultitlanapa¹⁵, Puebla, My 14; Las Naranjas, Oaxaca, My 28; Río Santa Lucía¹⁶, My 30; San Luís Tultitlanapa, Je 8-9, 25, Jl 2, 13.

Bailey Hortorium, Ithaca, New York

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¹⁶ Río Santa Lucía is said to separate the states of Puebla and Oaxaca. Since it is close to Las Naranjas, this may be the river shown

on some maps as Río Hondo.

¹⁵ Five of Brandegee's letters were written from San Luís. In his account, he said that most of the plants were collected near San Luís Tultitlanapa, south of Tehuacán near the boundary of Oaxaca. Though he said that San Luís had 300 inhabitants, I do not find San Luís Tultitlanapa on any map. However, he also said that Caltepéc was two miles away; and about two miles east of Caltepéc there is an San Luís Atototitlán. Perhaps this is the same place.

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All localities are in Baja California unless otherwise indicated. For 1890, and again for 1893, the first trip of the year is indicated by the yeardate with an "A", the second trip by the yeardate with a "B".

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Taste, El, 1893B, 1902 Tehuacán, Puebla, 1908 Tijuana, 1893A Todos Santos, 1890A, 1893B, 1899 Todos Santos Island, 1897 Tomate, Rancho, 1890A Trinidad, Sierra de la, 1902 Triunfo, 1890B

Ubi, 1889

Valladares, and Creek, 1893A Vinoramas, 1899 Yerba Buena, Sinaloa, 1904 Yervacito, Sinaloa, 1904 Yubay, 1889